

APR09-2009-000733

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Sorting Category: A19. (E)

Measurement of the top quark mass in the lepton+track sample at CDF MARCO TROVATO, INFN, Pisa, Italy, CDF COLLABORATION — We report on a measurement of the top quark mass in the lepton+track sample of events at CDF. This new selection was applied to $t\bar{t}$ candidates in the dilepton channel in order to increase the acceptance by relaxing the cuts on one lepton. To constrain the event kinematics the azimuthal angles of the two neutrinos are assumed as known and the top quark mass is reconstructed accordingly. The full neutrino phase space is scanned and χ^2 -dependent weights are given to the solutions in order to build a preferred mass for each event. The integrated luminosity of the data sample is 2.9 fb^{-1} . 328 candidate events were reconstructed and fitted as a superposition of signal and background. In a constrained fit with 145.0 ± 17.3 background events as determined in the production cross section studies we measure $m_t = 165.5 \pm_{3.3}^{3.4} \text{ (stat)} \pm 3.1 \text{ (syst.) GeV}/c^2$.

☒
☐

Prefer Oral Session
Prefer Poster Session

Florencia Canelli
canelli@fnal.gov
University of Chicago/Fermilab

Date submitted: 09 Jan 2009

Electronic form version 1.4